



Titanium Ingot, Mill Products, and Castings

MARCH 1979

ITA-991(79)-3
formerly DIB-991
Issued May 1979

U.S. Department of Commerce

BUREAU OF THE CENSUS

BUREAU OF DOMESTIC BUSINESS DEVELOPMENT

The statistics in this publication are based on a survey of manufacturers and represent total U.S. shipments of titanium ingot, mill products, and castings. Estimates are included for

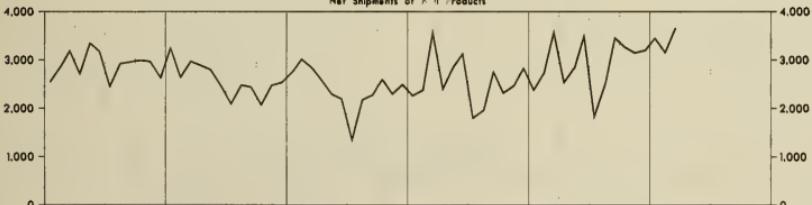
companies whose reports were not received in time for tabulation. A more complete description of this survey appears on page 4.

THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

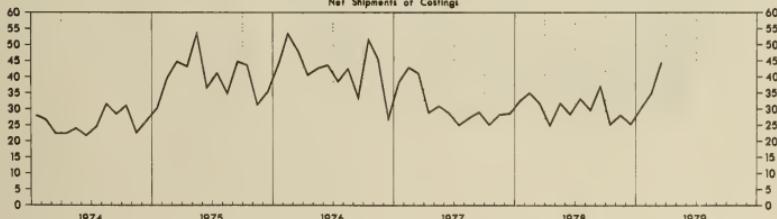
TITANIUM INGOT AND MILL PRODUCTS, 1974 TO 1979
(In Thousands of Pounds)



Net Shipments of All Products



Net Shipments of Castings



Address inquiries concerning these figures to the U.S. Department of Commerce, Industry and Trade Administration, Bureau of Domestic Business Development, Materials Division, Washington, D.C. 20230, or to the Bureau of the Census, Industry Division, Washington, D.C. 20233, or call James L. Oliver, (301) 763-2529.

For sale by the Subscriber Services Section (Publications), Bureau of the Census, Washington, D.C. 20233, or any U.S. Department of Commerce district office. Postage stamps not acceptable; currency submitted at sender's risk. Remittances from foreign countries must be by international money order or by a draft on a U.S. bank. Price 25 cents per copy, \$3.25 per year.

Table 1. TITANIUM INGOT, MILL PRODUCTS, AND CASTINGS: 1977 TO 1979

(Thousands of pounds)

Month and year	Ingot			Mill products net shipments ¹	Castings shipments
	Production	Consumption	Ending stocks		
1979					
March.....	6,983	6,357	4,368	3,664	44.5
February.....	5,858	5,447	3,947	3,170	34.9
January.....	6,582	6,767	4,039	3,464	30.3
1978					
December.....	5,784	5,532	4,310	3,207	25.5
November.....	5,546	5,717	3,886	3,160	28.3
October.....	6,141	6,740	4,654	3,279	25.5
September.....	5,660	5,305	5,122	3,474	37.4
August.....	6,336	4,956	5,452	2,603	29.9
July.....	4,004	3,903	3,685	1,866	33.4
June.....	5,792	5,360	4,186	3,534	28.6
May.....	5,224	4,985	4,111	2,847	32.0
April.....	5,138	5,272	4,266	2,500	25.2
March.....	5,395	5,443	4,879	3,223	31.9
February.....	4,024	4,585	3,480	2,743	35.2
January.....	4,388	4,530	3,973	2,401	26.5
1977					
December.....	4,441	4,276	3,795	2,847	28.7
November.....	3,897	4,081	3,863	2,473	28.4
October.....	4,439	4,822	3,713	2,333	25.3
September.....	5,652	4,812	4,318	2,778	29.1
August.....	4,016	3,836	3,722	1,965	27.4
July.....	3,307	2,886	3,965	1,814	25.2
June.....	5,488	5,016	3,646	3,145	28.9
May.....	4,797	4,764	3,438	2,860	31.1
April.....	4,594	4,856	3,682	2,428	29.1
March.....	5,090	5,126	3,688	3,630	41.2
February.....	4,003	4,203	3,658	2,384	43.1
January.....	3,626	3,699	3,667	2,275	38.4

¹See table 2 for more detailed data.

Table 2. NET SHIPMENTS OF TITANIUM MILL PRODUCTS

(Thousands of pounds)

Product	March 1979	February 1978	March 1978
Total.....	3,664	3,170	3,623
Sheet and strip.....	937	656	741
Plate.....			
Forging and extrusion billet.....	1,495	1,457	1,870
Rod and bar.....	639	542	510
Fastener stock and wire.....	172	174	115
Extrusions (other than tubing).....			
Pipe and tubing.....	421	341	387
Other.....			

Table 3. NET SHIPMENTS, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION OF TITANIUM MILL PRODUCTS: 1969 TO 1979
(Quantity in 1,000 pounds; value in thousands of dollars)

Month or year	Manufacturers' net shipments, ¹ (quantity)	Exports of domestic merchandise ^{1,2}			Percent exports to manufacturers' net shipments (quantity)	Imports for consumption ³		Calculated import duty, (value)	Apparent consumption ⁵ (quantity)	Percent imports to apparent consumption (quantity)
		Quantity	Value at port	Estimated producers' value		Quantity	Value ⁴			
1979										
March.....	3,664	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
February.....	3,170	66	817	778	2	90	375	62	3,194	3
January.....	3,464	49	605	576	1	124	656	102	3,539	4
1978										
December.....	3,207	96	817	778	3	125	526	94	3,238	4
November.....	3,160	109	1,089	1,038	3	83	351	62	3,134	3
October.....	3,279	62	586	558	2	237	804	137	3,454	7
September.....	3,474	82	799	761	2	161	658	117	3,553	5
August.....	2,603	78	685	653	3	154	744	118	2,679	6
July.....	1,866	116	987	940	6	256	1,063	188	2,006	13
June.....	3,534	152	1,072	1,021	4	207	867	153	3,589	6
May.....	2,847	217	1,759	1,702	8	214	962	164	2,844	8
April.....	2,580	74	630	600	3	191	817	144	2,677	7
March.....	3,623	242	1,943	1,851	7	64	207	38	3,445	2
February.....	2,743	73	661	630	3	282	1,053	176	2,932	10
January.....	2,401	80	713	679	3	276	1,143	200	2,597	11
1978, total.....	35,129	1,379	11,768	11,213						
1977, total.....	30,932	1,368	11,821	11,263	4	708	2,958	483	30,272	2
1976, total.....	38,995	1,604	12,970	12,358	6	647	2,939	510	28,038	2
1975, total.....	31,256	2,445	20,760	19,840	8	417	2,221	400	29,228	1
1974, total.....	34,866	2,233	17,197	16,485	6	415	1,659	297	33,068	1
1973, total.....	26,057	594	7,059	6,826	3	366	918	148	28,469	1
1972, total.....	25,254	609	4,285	4,133	2	423	1,087	190	22,968	2
1971, total.....	22,481	417	3,016	2,909	2	548	1,354	197	22,612	2
1970, total.....	28,960	560	3,962	3,821	2	1,104	2,976	519	24,504	4
1969, total.....	31,681	368	2,651	2,557	1	546	1,364	205	32,059	2

(NA) Not available.

¹See table 4 for comparison of Standard Industrial Classification (SIC) codes, Export (Schedule B) codes, and Import (TSUSA) codes.

²Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.

³Source: Bureau of the Census Report FT-135, U.S. General Imports, Commodity by Country.

⁴Beginning with 1978, the dollar value represents the c.i.f. (cost, insurance, and freight) value at the first port of entry in the United States plus U.S. import duties.

⁵Apparent consumption is derived by subtracting exports from the total of net shipments plus imports.

Table 4. COMPARISON OF STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES, EXPORT (SCHEDULE B) CODES, AND IMPORT (TSUSA) CODES

SIC product code	SIC Code Description	Export code (Schedule B)	Export Code Description	Import code (TSUSA)	Import Code Description
33562 74	Forging and extrusion billet.....	630.6570	Wrought titanium metal, including alloys (excludes sponge, ingots, billets, blooms, sheet bars, slabs, waste and scrap)	629.2000	Wrought titanium metal, including alloys (excludes waste and scrap and unwrought metal)
33562 79	Other (sheet, plate, tubing, bar, etc.).....				

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers firms engaged in manufacturing titanium ingot and mill products, including castings.

Sampling Description—The statistics in this publication were collected on the Bureau of Domestic Business Development Form ITA-991, Titanium Metal. The mailing panel for this survey includes all known titanium ingot, mill product, and castings producers.

Survey Error—Figures for the current month include estimates for respondents whose reports were not received in time for tabulation. Such missing figures are "imputed" from month-to-month movements shown by reporting firms and are generally limited to a maximum of 10 percent for any one item. Individual items with imputation rates greater than 10 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual monthly movements for nonrespondents may or may not closely agree with the imputed movements. The probable range of difference between the actual and imputed figures is unknown. The degree of uncertainty regarding the accuracy of the data, however, increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

Revision to Previous Period Data—Statistics for previous months may be revised due to receipt of corrected data from respondents, including late reports for which imputations were previously made as described above, and other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Seasonal Adjustment—The data are not adjusted for seasonal variation or number of working days.

EXPLANATION OF TERMS

Net Shipments—Derived by subtracting the sum of producers' receipts of each mill shape from the industry's gross shipments of that shape.

Gross Shipments—Include the quantities of mill shapes consumed in rolling mills in the production of fabricated products such as forgings, etc. Also includes the quantities of mill shapes shipped between producers.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classifi-

cation is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

a. *Valuation*—There are different methods of valuation for the three types of data.

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Imports—Valued at the first port of entry in the United States. It includes c.i.f. (cost, insurance, and freight), duty, and other charges to the import point.

Estimated producers' value of exports have also been developed. These values more closely approximate the values reported for domestic output because they exclude freight, insurance and other charges applied from the producing plant to the export point.

b. *Duplication in Quantity and Value of Output*—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

c. *Low-Valued Export and Import Transactions*—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$251 effective October 1969 and for shipments valued under \$100 prior to October 1969. This is believed to have only negligible effect on the statistics for most commodities.

d. *Manufacturers' Shipments, Not Specified by Kind*—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

e. *Time Lag Between Output and Exports*—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially

when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

f. *"Direct" vs "Total" Commodity Export and Imports*—Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

g. *Used Commodities*—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

RELATED REPORTS

An annual Current Industrial Report is published in this series. The annual report summarizes monthly figures and incorporates all known revisions in the series for both current and previous year, thus providing a single reference copy to replace the monthly publications. This annual summary provides additional information on the history of this survey.

The Bureau of the Census also publishes reports on related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders
M33-2	Monthly	Aluminum Ingot and Mill Products

Current Industrial Reports

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders
M33-2	Monthly	Aluminum Ingot and Mill Products

Series	Frequency	Title
MA-33G	Annually	Magnesium Mill Products
MA-33B	Annually	Steel Mill Products
M33A	Monthly	Iron and Steel Castings
M33E	Monthly	Nonferrous Castings
<i>Foreign Trade Reports</i>		
FT-410	Monthly	U.S. Exports—Schedule B—Commodity by Country
FT-135	Monthly	U.S. General Imports—Schedule A—Commodity by Country

CONTACT FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report ITA-991 formerly DIB 991	James L. Oliver	(301) 763-2529
Foreign Trade publications	Juanita Noone	(301) 763-5140
Bureau of Domestic Business Development	James Manion	(202) 377-2692
To order a Census Bureau publication	Daisy Williams	(301) 763-7472
To order Census Bureau microfiche	Dorothy Dunham	(301) 763-5511



Digitized by the Internet Archive
in 2011 with funding from

University of Florida, George A. Smathers Libraries with support from LYRASIS and the Sloan Foundation

Data User Services

Training Courses / Telephone Assistance
Conference Exhibits / Guides and
Indexes / Newsletters and
Catalogs / Cooperative Assistance
Programs

Regional assistance available from 12 Census Bureau offices:

Atlanta, Georgia 1365 Peachtree St. NE, Room 625, 3030 (404) 881-2274 **Boston,**
Massachusetts 441 Stuart St., 10th Floor, 02116 (617) 223-0668 **Charlotte, North Carolina** 230 South Tryon St., Suite 800, 28202 (704) 371-6144 **Chicago, Illinois** 55 E. Jackson Blvd., Suite 1304, 60604 (312) 353-0980 **Dallas, Texas** 1100 Commerce St., Room 3C54, 75242 (214) 749-2394 **Denver, Colorado** 575 Union Blvd., 80225 (303) 234-5825 **Detroit, Michigan** Federal Bldg. & U.S. Courthouse, Room 565, 231 West Lafayette,

48226 (313) 226-4675 **Kansas City, Kansas** One Gateway Center, 4th & State Sts., 66101 (816) 374-4601 **Los Angeles, California** 11777 San Vicente Blvd., Room 914, 90049 (213) 824-7291 **New York, New York** 26 Federal Plaza, Room 37-130, 10007 (212) 264-4730 **Philadelphia, Pennsylvania** 600 Arch St., Room 9226, 19106 (215) 597-8314 **Seattle,**
Washington 1700 Westlake Ave., 98109 (206) 442-7080

Washington assistance available from the Data User Services Division (301/763-2400) or from any of the subject divisions. A Telephone Contact List with more than 200 subject specialists listed is available.

Mail to:
Data User Services Division
Bureau of the Census
Washington, DC 20233

Data User Services Please send me information on the subjects checked below.

<input type="checkbox"/> Population	<input type="checkbox"/> Wholesale Trade	<input type="checkbox"/> Foreign Trade
<input type="checkbox"/> Housing	<input type="checkbox"/> Retail Trade	<input type="checkbox"/> Data available on computer tape
<input type="checkbox"/> Agriculture	<input type="checkbox"/> Service Industries	<input type="checkbox"/> Census Geography
<input type="checkbox"/> Governments	<input type="checkbox"/> Transportation	
<input type="checkbox"/> Construction	<input type="checkbox"/> Catalogs, Guides, Directories, Indexes, and General Summaries	
<input type="checkbox"/> Manufactures	<input type="checkbox"/> Data User Training Activities	
<input type="checkbox"/> Mineral Industries		

Please add my name to your mailing list to receive new product announcements.

NAME _____

ORGANIZATION _____

STREET _____

CITY _____ STATE _____ ZIP _____

U.S. Department
of Commerce

BUREAU OF THE CENSUS
Washington, D.C. 20233

Official Business

UNIVERSITY OF FLORIDA

3 1262 08589 2437

First Class Mail

COM-202

